



AB 904



Załącznik 2 do MS-0043605

Raport z badań nr: Test Report No.:		26634676/2022		Nr zamówienia: Order No.:		84958699		Strona 1 z 16 Page 1 of 16 Załączniki / Annex:1	
Nr referencyjny Klienta: Client Reference No.:		1438073		Data zamówienia: Order date:		2021.12.15			
Zleceniodawca**: Client**:		Maltex Sp. z o.o. ul. Przemysłowa 8J; 85-758 Bydgoszcz							
Przedmiot badania**: Test item**:		Stepstool							
Oznaczenie / Nr typu**: Identification / Type No.**:		Stepstool with anti-slip rubber bands for children							
Rodzaj zamówienia: Order content:		Safety tests							
Podstawa badań: Test specification:		PN-EN 14183:2004^A							
Data przyjęcia: Date of receipt:		2021.12.13							
Nr próbki Test sample No.:		P/21/650							
Czas badania: Testing period:		2021.12.20 – 2022.01.04							
Miejsce badania: Place of testing:		TÜV Rheinland Polska Sp. z o.o. ul. Lutycka 11, 60-415 Poznań							
Laboratorium badawcze: Testing laboratory:		TÜV Rheinland Polska Sp. z o.o. Oddział Poznań – Hardlines ul. Lutycka 11, 60-415 Poznań							
Wynik badania*: Test result*:		Pass							
Opracowane / Compiled by :				Autoryzowane / Authorized by :					
2022.01.05 M. Strugalski / Testing specialist				2022.01.05 W. Sajewicz / Laboratory Manager					
Data Date	Nazwisko/Stanowisko Name/Position	Podpis Signature	Data Date	Nazwisko/Stanowisko Name/Position	Podpis Signature				
Inne / Other:									
The test report contains the results of 26634580 (November 16, 2021)									
Stan przedmiotu badania po dostawie: Condition of the test item at delivery:				Przedmiot badań jest kompletny i nienaruszony Test item complete and undamaged					
*Legenda: 1 = bardzo dobrze 2 = dobrze P(ass)-zgodne z podstawami kontroli/wymaganiami/specyfikacją * Legend: 1 = very good 2 = good P(ass) = passed a.m. test specification(s)				3 = zadowalający F(ail)-niezgodny z podstawami kontroli/wymaganiami/specyfikacją 3 = satisfactory F(ail) = failed a.m. test specification(s)					
				4 = dostateczny N/A = nie dotyczy 4 = sufficient N/A = not applicable					
				5 = niedostateczny N/T = nie badano 5 = poor N/T = not tested					
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UWAGI/ REMARKS

Wypożyczenie badawcze używane w czasie badań zostało wyzorcowane zgodnie z Harmonogramem wzorcowań i sprawdzeń. Wypożyczenie spełnia wymagania zawarte w odpowiednich normach. Identyfikowalność używanego wyposażenia badawczego jest zapewniona przez zgodność z dyspozycjami systemu zarządzania. Szczegółowe informacje dotyczące warunków badań, wyposażenia i niepewności pomiaru są dostępne w Laboratorium Badawczym i mogą być dostarczone na żądanie.

The equipment used during the specified testing period was calibrated according to Test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the Laboratory and could be provided on request.

Jeżeli specyfikacja lub wymaganie nie określają zasady podejmowania decyzji, stwierdzenie zgodności jest oparte na zasadzie:

Where a specification or requirement does not specify a principle for decision-making, the determination of conformity shall be based on the principle:

- ☒ Binarnego stwierdzenia zgodności (zasada oparta na prostej akceptacji), / *Binary statement of conformity (principle based on simple acceptance),*
☐ Binarnego stwierdzenia zgodności w przypadku zastosowania pasma ochronnego, / *Binary conformity assertion for guard band application,*
☐ Niebinarnego stwierdzenia zgodności w przypadku zastosowania pasma ochronnego. / *Non-binary conformance statement when a guard band is used.*

Powyższe zasady uwzględniono zgodnie z ILAC-G8:09/2019, odniesienie do nich zawarto w Załączniku 4 do MS-0043604.

Above principles are considered in accordance with ILAC-G8:09/2019, reference is made to them in Annex 4 to MS-0043604.

Jak uzgodniono w umowie, dokument ten został podpisany wyłącznie w formie cyfrowej. TÜV Rheinland nie sprawdziło i nie jest w stanie sprawdzić, które z wymogów prawnych lub innych odnośnych wymogów mają zastosowanie do niniejszego dokumentu. Taka weryfikacja leży w zakresie odpowiedzialności użytkownika tego dokumentu. Na życzenie Klienta TÜV Rheinland może potwierdzić ważność podpisu cyfrowego za pomocą osobnego dokumentu. Wniosek taki należy skierować do Działu sprzedaży. Za taką dodatkową usługę będzie pobierana opłata środowiskowa.

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A – metoda badawcza akredytowana; P – podwykonawstwo; AP – metoda badawcza akredytowana u podwykonawcy

Wyniki badań z uwagą P są zlecane kompetentnym i zakwalifikowanym podwykonawcom i wyraźnie oznaczone w Raporcie z badań. Odchylenia od podstawy badawczej lub wymagań Klienta są wymienione w opisie metody (podstawy) badawczej w Raporcie z badań.

A – accredited method, P – subcontracted method; AP – method accredited by a subcontractor

The clauses with remark of P are subcontracted to qualified approved subcontractors and described under the respective test clause in the Test Report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the Test Report.

Lista użytego sprzętu badawczego

List of used test equipment

Urządzenie pomiarowe <i>Test equipment</i>	Numer urządzenia / ID-Nr <i>Equipment No. / ID-No.</i>	Następna kalibracja <i>Next calibration</i>
Dimensions/ Weight	A/143/W/P-H.1	12.2022
	A/95/W/P-H.1	08.2023
	A/137/W/P-H.1	02.2022
	A/166/W/P-H.1	02.2022
Static / Dynamic tests	E/5/S/P-H.1	03.2023
	E/7/S/P-H.1	03.2023
	E/27/S/P-H.1	03.2023
	E/29/S/P-H.1	03.2023
	E/32/S/P-H.1	03.2023
	A/68/W/P-H.1	09.2023
	A/79/W/P-H.1	10.2023
	E/85/S/P-H.1	03.2023
	E/93/S/P-H.1	03.2023
	E/125/S/P-H.1	03.2023
	A/151/W/P-H.1	02.2022
	A/153/S/P-H.1	03.2023
	E/159/S/P-H.1	03.2023

Lista użytego sprzętu badawczego
List of used test equipment

[illegible]

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1.1	Szczegóły produktu <i>Product details</i>	Stepstool with anti-slip rubber bands for children A platform made of plastic with anti-skid elements on the tread surface as well as in the place of support and contact with the ground.
1.2	Wymiary / waga <i>Dimensions / Weight</i>	Dimensions: 290 x 422 x 142 mm Weight: 525,2 g
1.3	Elementy badane <i>Operating elements</i>	-
1.4	Wyposażenie/Akcesoria <i>Equipment / Accessories</i>	-
1.5	Zastosowane materiały <i>Used materials</i>	Plastic
1.6	Różne <i>Other</i>	Próbka(-i) testowa(-e), jak również informacje o próbce, opis, szczegóły dotyczące produktu i jego przeznaczenia zostały dostarczone przez klienta. <i>Test sample(s), as well sample information, description, product details and intended usage was provided by customer.</i>
1.7	Sposób dostarczenia próbek: <i>Test sample obtaining:</i>	☐ 1) pobrane przez Próbobiorcę Laboratorium TÜV Rheinland Polska / Collected by Sampler - Laboratory TÜV Rheinland ☒ 2) pobrane przez Zleceniodawcę* / Collected by Principal*: ☐ 2.1) dostarczone przez Próbobiorcę Laboratorium TÜV Rheinland Polska / Delivered by Sampler Laboratory TÜV Rheinland ☐ 2.2) osobiście/personal receipt * ☒ 2.3) pocztą/kurierem by post/courier * ☐ 3) inne/other *Za reprezentatywność i przygotowanie próbek odpowiada Zleceniodawca w przypadku samodzielnego ich pobierania <i>In the case when the samples are collected by the Principal, they are responsible for the samples representativeness</i>

Fig. 1



Fig. 2



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PN-EN 14183:2004^A

4 Functional dimensions, designations, requirements

4.1 General

Wymagania / requirements	Spostrzeżenia / remarks	
The drawings are examples only and products need not correspond. However, dimensions are binding. Step stools shall only be fitted with steps that are uniformly spaced to within a tolerance of ± 2 mm. If the top surface is less than 240 mm x 400 mm, the step stool or stair type steps with a height of more than 750 mm shall have a handrail. All types of products covered by this standard may be fitted with castors and wheels.	⇒ Standard assumption included	☒ P ☐ F ☐ N/A ☐ N/T

Table 1 — Nomenclature and symbols

Symbols	A	Step stool with fixed legs
	B	Step stool with folding legs that are braced when in use
	C	Stair type steps
	D	Step stool with fold-out steps
	E	Step stool with pull-out steps
	F	Dome type step stool
Quantities	h	Height from the floor to the top surface of the platform or seat
	a	Height from the floor to the top surface of the lowest step and between the top surfaces of subsequent steps, platform or seat
	b_1	Width of platform or seat
	b_2	Width across the outer edges of legs at floor level
	b_3	Width of each step
	b_5	Depth of platform or seat
	b_6	Depth across the outer edges of the legs at floor level
	b_7	Depth of all steps
	b_8	Depth of stair type step stools
	α	Angle between the horizontal and the leading edges of all climbing supports.
	β	Angle between the horizontal and an imaginary line drawn between the rear edge of the rear legs at floor level and the rear edge of the platform or seat.

Table 2 — Functional dimensions for all types of step stools

Dimensions in millimetres

	h	a	b_1	b_2	b_3	b_5	b_6	b_7	b_8	α	β
min.	—	—	300	$b_1 + 0,1 h$	250	200	$b_5 + 0,1 h$	80	150	45°	45°
max.	1 000 ^a	250	—	—	—	600	—	—	—	70° ^b	87°

^a 500 mm for dome type step stools

^b 80° for heights ≤ 500 mm

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4.2 Step stool with fixed or folding legs

Wymagania / requirements

There shall be no gap between the projection of the steps to the ground (see Figure 1b).

Designation of a step stool with fixed legs (A) with three steps:

Step stool EN 14183 — A — 3

Designation of a step stool with folding legs that are braced when in use (B) with three steps:

Step stool EN 14183 — B — 3

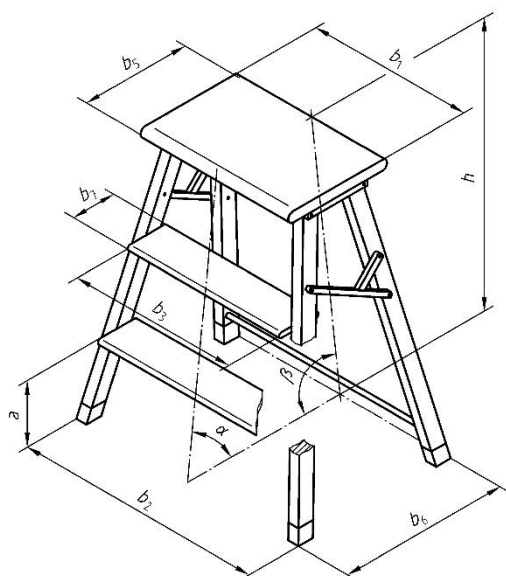


Figure 1a — Step stool with fixed or folding legs

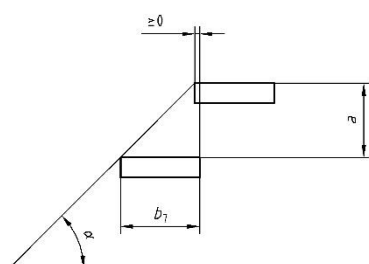


Figure 1b — Overlapping of steps for step stools

Spostrzeżenia / remarks

Not applicable

☐ P
☐ F
☒ N/A
☐ N/T

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4.3 Rigid or folding stair type steps

Wymagania / requirements

There shall be a minimum of 150 mm not overlapping distance between the steps (see Figure 2b). Designation of stair type steps (C) with three steps:

Step stool EN 14183 — C — 3

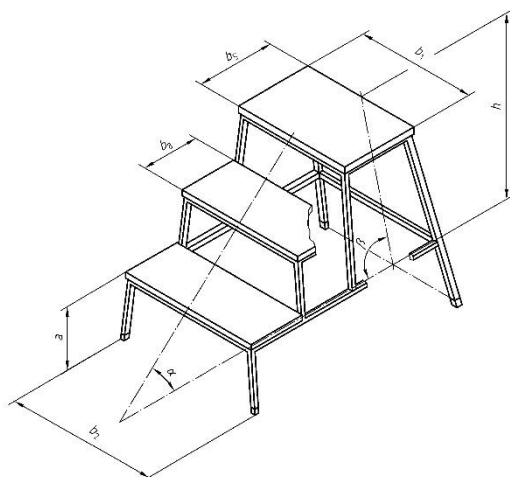


Figure 2a — Stair type steps

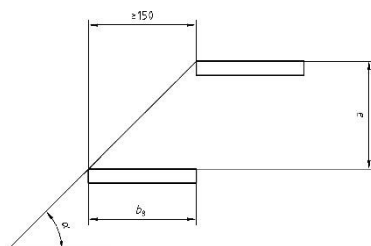


Figure 2b — Overlapping of steps for stair type steps

Spostrzeżenia / remarks

Not applicable

☐ P
☐ F
☒ N/A
☐ N/T

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4.4 Fold-out/pull-out step stool

Wymagania / requirements

Spostrzeżenia / remarks

Designation of a step stool with fold-out steps (D) with three steps:

Step stool EN 14183 — D — 3

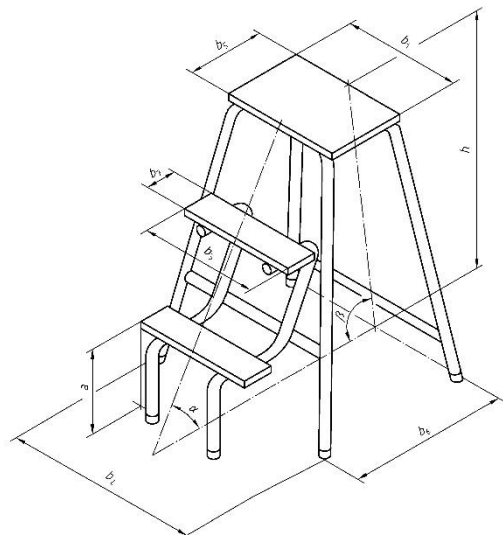


Figure 3 — Step stool with fold-out steps

Designation of a step stool with pull-out steps (E) with three steps:

Step stool EN 14183 — E — 3

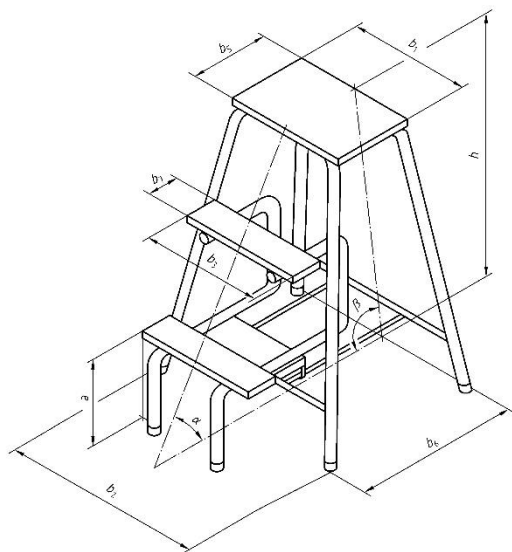
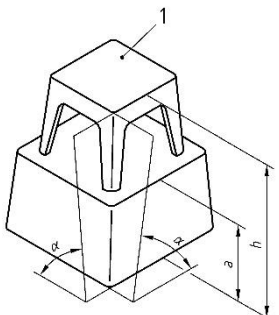


Figure 4 — Step stool with pull-out steps

Not applicable

☐ P
☐ F
☒ N/A
☐ N/T

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4.5 Dome type step stool		
Wymagania / requirements	Spostrzeżenia / remarks	
The platform shall have a minimum area of 600 cm² and shall include a square of 200 mm x 200 mm. Designation of a dome type step stool (F): Step stool EN 14183 — F  Key 1 Top platform Figure 5 — Dome type step stool	⇒ Size of the platform allows a template 200x200 mm to be inserted on it. ⇒ Platform area is over 600 mm².	☒ P ☐ F ☐ N/A ☐ N/T
5 Additional requirements		
5.1 Materials		
5.1.1 General		
Wymagania / requirements	Spostrzeżenia / remarks	
The requirements for materials only apply to load-bearing components.	⇒ Standard assumption included	☒ P ☐ F ☐ N/A ☐ N/T
5.1.2 Plastic		
Wymagania / requirements	Spostrzeżenia / remarks	
When using plastic materials, ageing and temperature resistance have to be taken into account. Glass-fibre reinforced plastics shall be protected against penetration of water and dirt. The surface shall be smooth. The fibres shall be embedded.	⇒ During test, product does not has damaged. ⇒ The plastic do not has glass-fibre. ⇒ See photo documentation	☒ P ☐ F ☐ N/A ☐ N/T
5.1.3 Steel		
Wymagania / requirements	Spostrzeżenia / remarks	
Parts made of steel shall have a thickness of at least 0,90 mm.	Not applicable	☐ P ☐ F ☒ N/A ☐ N/T
5.1.4 Aluminium		
Wymagania / requirements	Spostrzeżenia / remarks	
Parts made of aluminium shall have a thickness of at least 1,20 mm.	Not applicable	☐ P ☐ F ☒ N/A ☐ N/T
5.2 Steps and platforms		
Wymagania / requirements	Spostrzeżenia / remarks	
Top surfaces of steps and platforms shall have resistance against slipping. The contact surface of the coverings shall adhere firmly to the steps. Steps and platforms shall be firmly and durably connected to the stiles. When loaded as specified in 6.2, the platform and the steps shall show no signs of damage, such as fractures, or cracks.	⇒ The footrest has anti-slip elements. ⇒ The platform does not has steps. ⇒ During test, product does not has damaged. ⇒ See photo documentation	☒ P ☐ F ☐ N/A ☐ N/T

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5.3 Slip resistance		
5.3.1 Feet or bottom end of stiles		
Wymagania / requirements	Spostrzeżenia / remarks	☒ P ☐ F ☐ N/A ☐ N/T
Feet or bottom ends of stiles shall be soled with a slip resistant material (e. g. rubber). Requirements of 5.3 are considered to be met if successfully tested according to 6.3.	⇒ The ends of the legs are equipped with plastic elements to prevent slipping ⇒ See PN-EN 14183 p.6.3	
5.3.2 Rollers and wheels		
Wymagania / requirements	Spostrzeżenia / remarks	☐ P ☐ F ☒ N/A ☐ N/T
Where rollers or wheels are fitted, step stools and rigid steps shall be designed so as to prevent any accidental displacement when loaded. Rollers shall either be automatically locked or automatically disabled once the step stool or rigid steps are loaded.	Not applicable	
5.4 Opening restraint and compression security devices		
Wymagania / requirements	Spostrzeżenia / remarks	☐ P ☐ F ☒ N/A ☐ N/T
Step stools and stair type steps shall be prevented from unintended folding when deployed for use.	Not applicable	
5.5 Design		
Wymagania / requirements	Spostrzeżenia / remarks	☒ P ☐ F ☐ N/A ☐ N/T
Finger traps (shearing points) shall be avoided as far as possible. All connections shall be durable and have a strength corresponding to the strain. The connections shall be designed in a manner that arising notch tensions remain low. Screws and nuts shall be secured against self-acting slackening, e. g. by means of safety devices with a blocking effect or being positive. Welding of joints is permitted if welding procedures and welding personnel are suitable. EN 719 and EN 729-1 to EN 729-4 shall be observed.	⇒ The footrest has no dangerous points that could cause trapping or pinching. ⇒ The footrest has no screw connections.	
5.6 Surface finish		
Wymagania / requirements	Spostrzeżenia / remarks	☒ P ☐ F ☐ N/A ☐ N/T
In order to avoid injuries, accessible edges, corners, and protruding parts shall be free of burrs, chamfered or rounded. Metal parts susceptible to corrosion shall be protected by means of a paint coating or other coating. Under normal conditions aluminium alloy products are not likely to corrode and need no protection. If wooden parts are coated, the coating shall be transparent and permeable to water vapour.	⇒ Accessible edges and corners don't present any risk of injury.	
5.7 Hinges (turning points)		
Wymagania / requirements	Spostrzeżenia / remarks	☐ P ☐ F ☒ N/A ☐ N/T
Hinges shall connect the legs of the step stool durably. Hinges shall be designed in such a manner that no abutment of the step stool parts over the hinges is formed during use of the step stool. The hinge pin shall be secured against unintentional loosening. The diameter of steel hinge pins shall not be less than 5,0 mm or screw M 6. Pins of other materials shall have at least the same strength. If the pin has several shearing points (piano hinge) there is no restriction as to the hinge pin diameter.	Not applicable	

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5.8 Padding		
Wymagania / requirements	Spostrzeżenia / remarks	☐ P ☐ F ☒ N/A ☐ N/T
An assembled seat may have padding, which shall not exceed a thickness of 20 mm in an unloaded state.	Not applicable	
6 Test methods		
6.1 General		
Wymagania / requirements	Spostrzeżenia / remarks	☒ P ☐ F ☐ N/A ☐ N/T
An uncertainty of measurement of $\pm 1,0$ mm is permitted for the tests specified in 6.2, 6.3 and 6.4.	⇒ During test, product does not has damaged. ⇒ See next points of the report	
6.2 Vertical static load test of steps and platforms		
Wymagania / requirements	Spostrzeżenia / remarks	☒ P ☐ F ☐ N/A ☐ N/T
All types of products covered by this standard shall be subjected to this test on each step, platform and seat. The padding of a padded seat shall be removed for this test. The product shall be placed on a firm, flat surface and deployed for use as detailed in the instructions for use. Loading shall be applied centrally and evenly distributed over an area of 100 mm $\times$ 100 mm. Firstly apply a pre-load of 200 N for the duration of 1 min. After this remove the pre-load and set measuring equipment to read the resulting position of the surface as a datum. Apply a load of 2600 N for the duration of 1 min and then remove the load. Measure and record the permanent deflection from the datum. Also measure the width of the surface being tested. Examine and record any cracks or ruptures of materials. Any permanent deflection of metal or plastic parts shall be max. 0,5 % of the width of the platform or the step. Measurement shall be carried out 1 min after load removal.	⇒ During test, product does not has damaged. ⇒ See photo documentation	

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6.3 Determination of friction coefficient

Wymagania / requirements

Position the product on a 2 mm plain decorative high-pressure laminate (HPL) HPL EN 438-S333. Apply a load F of 125 N to the centre of the bottom step (positioned as in 6.2). Using appropriate measuring equipment measure the minimum horizontal pulling force Z required to overcome friction and cause the product to slide. Measure the weight of the product in Newtons G .

Calculate the coefficient of friction using:

Friction coefficient

$$\mu = \frac{Z}{G + F} \text{ shall be } \geq 0,20$$

where

μ is the friction coefficient

Z is the horizontal pulling force in Newtons

G is the weight force of the step stool in Newtons

F is an additional load of 125 N

Test temperature $(20 \pm 5) ^\circ\text{C}$.

Duration: 1 min.

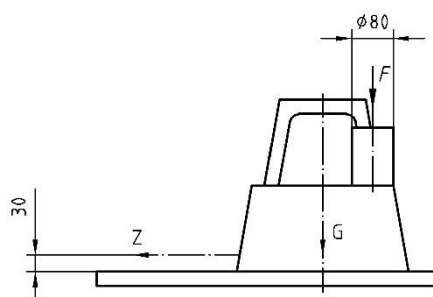


Figure 6 — Determination of friction coefficient using a dome type step stool

Spostrzeżenia / remarks

⇒ The footrest meet requirements of the standard

$Z = 71,0 \text{ N}$

$G = 5,3 \text{ N}$

$F = 125 \text{ N}$

$$\mu = \frac{71,0}{5,3 + 125} = 0,54 \geq 0,20$$

☒ P
☐ F
☐ N/A
☐ N/T

6.4 Seat Suitability Test

Wymagania / requirements

This test only applies to step stools with padded seats.

To test the seat as suitable for use as a climbing support, place a disc with a mass of 0,1 kg and a diameter of 100 mm on the centre of the seat. Place a cylindrical mass of 2 kg with a diameter of 100 mm on the disc. Measure and record the settlement of the disc due to the 2 kg mass after 1 min. When tested, the settlement shall not exceed 10 mm.

Spostrzeżenia / remarks

Not applicable

☐ P
☐ F
☒ N/A
☐ N/T

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7 Instructions for use		
<i>Wymagania / requirements</i>	<i>Spostrzeżenia / remarks</i>	
Suitable instructions for use have to be provided by the manufacturer. This shall include the maximum total load of not more than 150 kg. NOTE A standard for user information for ladders is in preparation as prEN 131-3.	⇒ The label has information about max load 150 kg.	☒ P ☐ F ☐ N/A ☐ N/T
8 Marking		
<i>Wymagania / requirements</i>	<i>Spostrzeżenia / remarks</i>	
All marking shall be clear and durable and prominently positioned on the product. The marking shall include: — manufacturer's declaration of suitability of use. The manufacturer shall advise of any limit of use to which the product is allowed and any environment for which it is unsuitable (e.g. "for indoor use only"); — name of the manufacturer and/or supplier; — product designation in accordance to clause 4; — year and month of manufacture and/or serial number; — maximum total load. Only products that comply with this standard may be marked "EN 14183".	⇒ The label contain each information, required by standard ⇒ After tests, label is clear and legible.	☒ P ☐ F ☐ N/A ☐ N/T

Przedstawione wyniki badań odnoszą się wyłącznie do otrzymanych i badanych próbek. Niepewność rozszerzona pomiaru dla $k=2$ wyznaczona jest dla poziomu ufności 0,95
The presented test results refers only to received and tested samples. The expanded uncertainty of measurement for $k=2$ is determined for a confidence level of 0,95.

Załącznik nr 1 / *Annex No. 1*
Dokumentacja fotograficzna
Photo documentation

Fotografia / *Photo 1*
General view



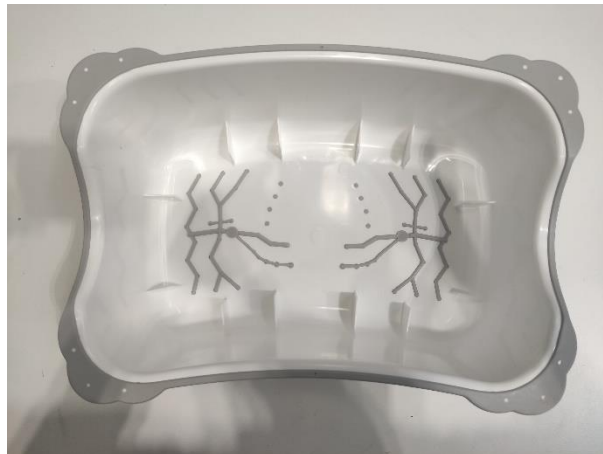
Fotografia / *Photo 2*
General view



Fotografia / *Photo 3*
Construction details



Fotografia / *Photo 4*
Construction details

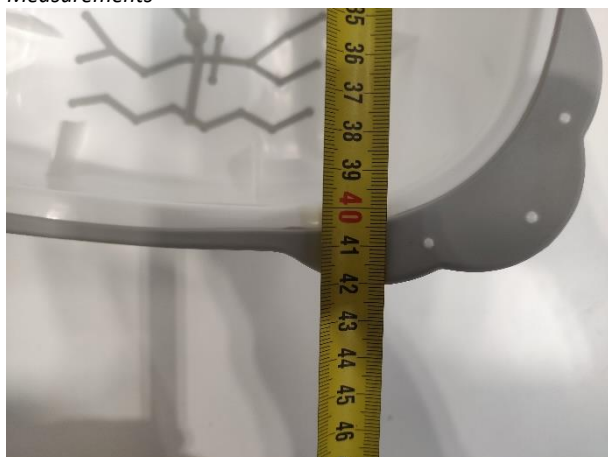


Raport z badań nr:
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Fotografia / Photo 5
Measurements



Fotografia / Photo 6
Measurements



Fotografia / Photo 7
Measurements



Fotografia / Photo 8
Mechanical tests



Fotografia / Photo 9
Mechanical tests



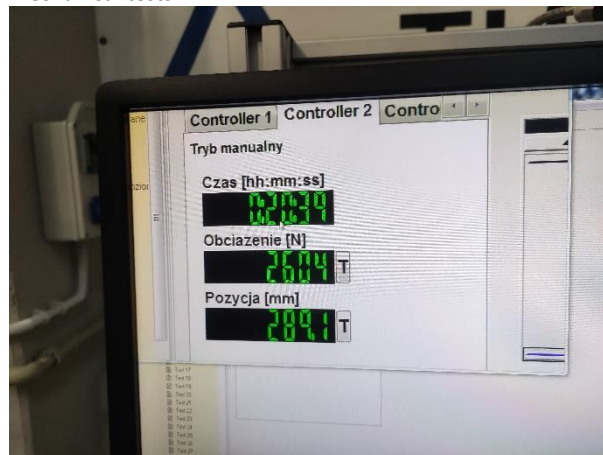
Fotografia / Photo 10
Mechanical tests



Fotografia / Photo 11
Mechanical tests



Fotografia / Photo 12
Mechanical tests



Fotografia / Photo 13
Marking



Koniec raportu z badań
End of Test Report